

If the wall is a through wall, make a mark at $1\frac{1}{2}$ " and $2\frac{3}{4}$ " to mark the end stud and extra corner stud. Then, mark at $15\frac{1}{4}$ " (for 16" on-center spacing) or $23\frac{3}{4}$ " (for 24" on-center spacing)—measuring from this mark, make a mark every 16" (or 24") to the end of the plates. Make a mark $1\frac{1}{2}$ " in from the opposite end. Following your plan, draw an X next to each mark, designating to which side of the line the stud goes.

Mark the king and jack studs with a K and J respectively, and mark the cripple studs with a C.

If the wall is a butt wall, mark the plate at $1\frac{1}{2}$ ", then move the tape so the $3\frac{1}{2}$ " tape mark is aligned with the end of the plate. Keeping the tape at that position, mark at $15\frac{1}{4}$ " (for 16" spacing) or $23\frac{3}{4}$ " (for 24" spacing) then mark every 16" (or 24") from there. The $3\frac{1}{2}$ " that are "buried" account for the width of the through wall.

4. Using a square, draw lines through each of the layout marks, carrying them over to the other plate. Draw Xs on the other plate, as well.

Step C: Cut the Studs & Build the Headers

1. Cut the studs to length, following the framing plan; make sure both ends are square. (Before cutting, give each stud a quick inspection to check for excessive bowing or crowning; reserve any bad studs for scrap or blocking.)

2. Select straight lumber for the door-frame studs.

SECURING PLATES TO CONCRETE SLABS

When building walls over a concrete slab, drill holes in the bottom plates for the anchor bolts before marking the stud layouts.

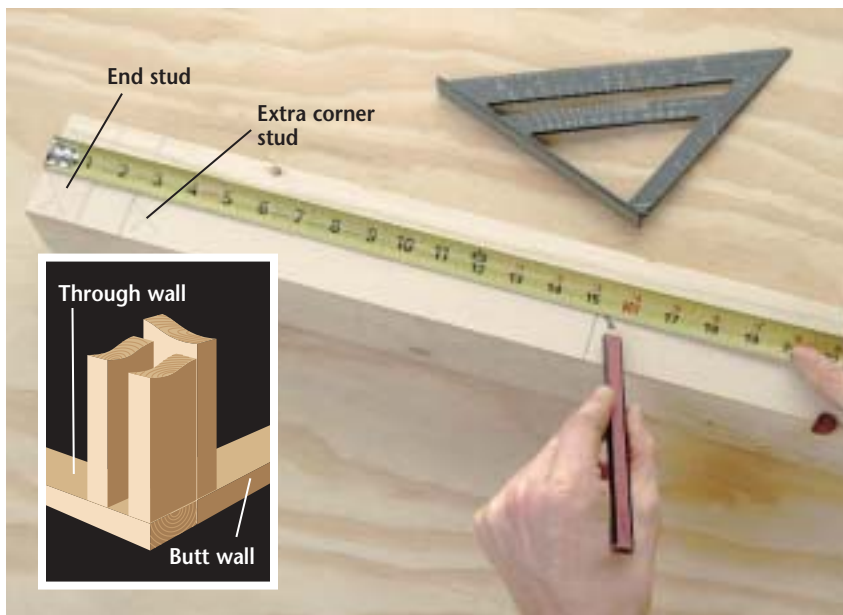
Position each plate on its layout line with the ends flush with the edges of the slab. Use a square to mark the

edges of the bolt onto the plate (**top photo**).

Measure from the layout line to the bolt center and transfer that dimension to the plate. Drill

holes through the plates slightly larger in diameter than the bolts.

After raising the walls, anchor the plates to the bolts with washers and nuts (**bottom photo**).



B. Mark the stud layout onto the wall plates, designating the stud locations with Xs. Through walls have an extra corner stud $2\frac{3}{4}$ " from each end.



C. Construct the headers from 2 × lumber and a $\frac{1}{2}$ " plywood spacer.